Science Processing and Visualization

JPL

- **Overall Objective**

  - Provide a complete end-to-end data solution for science instrument development and operations in remote sensing and *in-situ* applications.

- **Goals and Products**

  - Provide phased deployment of
    - On-board science data processing with increasing autonomy
    - Visualization products in support of real-time *in-situ* vehicle navigation and science planning
    - Integrated end-to-end science data systems with flight and ground elements

  - Develop enabling technologies for
    - Feature recognition and tracking
    - On-board, adaptive data compression
    - On-board data mining
    - *In-situ* vehicle location and navigation
    - Automated mosaicking
    - Handling and visualization of non-imaging instruments
    - Distributed science catalogue

  - Adapt processing system architecture for direct science operations support
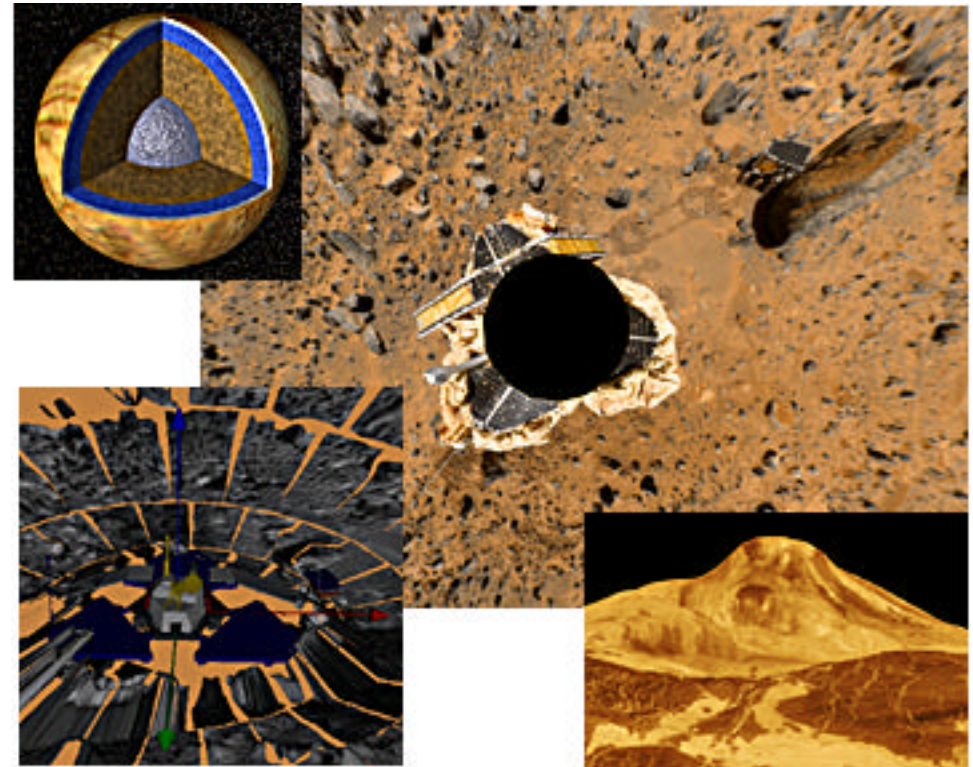
Advanced Science Data Visualization Products

- Mars '01 Science Data Processing on-line early FY 01
- Cassini Science Data Processing on-line FY 03

	Robot arm navigation and planning tools		Automated feature location		Automated mosaicking Rover navigation tools			Feature recognition Adaptive compression Distributed catalog	
FY98		**FY99**		**FY00**		**FY01**	**FY02**	**FY03**	**FY04**